WHAT IS CLAIMED:

1   1. A computer system comprising:

2   a power supply for providing a voltage;

3   at least two boards, each board receiving the voltage, and wherein each board

4   comprises

5   at least one voltage regulator, for receiving the voltage and for providing a

6   regulated voltage level to the board, and

7   at least one processor for controlling the regulated voltage level.

1   2. The computer system of claim 1 wherein the processor monitors a value of at

2   least one power-related parameter on the board and controls the voltage regulator in such

3   a way as to influence a subsequent value of the at least one parameter.

1   3. The computer system of claim 2 wherein the processor, upon detection of a

2   fault associated with the at least one power related parameter, shuts down the board.

1   4. The computer system of claim 2 wherein the at least one power-related

2   parameter is a regulated voltage of the board.

1   5. The computer system of claim 2 wherein the at least one power-related

2   parameter is a temperature value of the board.

1   6. The computer system of claim 1 wherein each board further comprises a

2   signaling interface for receiving instructions therefrom, and wherein, the processor is

3   responsive to the received instructions for controlling the at least one voltage regulator.

1   7. The computers system of claim 6 wherein the processor causes data to be

2   written to a system log file, wherein the data is associated with the at least one power

3   related parameter.

1   8. The computers system of claim 1 further comprising an interface for coupling

2   to a console for receiving instructions therefrom for controlling various ones of the

3 processors on each of the at least two boards.

1 9. The computer system of claim 1 wherein the at least one power-related

2 parameter is a temperature value of the board and wherein the processor collects

3 temperature values over time for performing a time-based analysis of the collected

4 temperature values.

1 10. A computer system comprising:

2 a plurality of boards, each board comprising a power control element, wherein the

3 power control element comprises a regulator for providing a regulated voltage to the

4 board and a processor for monitoring and controlling the regulator; and

5 a signaling interface coupled to each power control element of each of the

6 plurality of boards for communicating data to, and from, each one of the processors.

1 11. The computer system of claim 10 wherein the processor for each board

2 monitors a value of at least one power-related parameter for its board and controls its

3 regulator in such a way as to influence a subsequent value of the at least one parameter.

1 12. The computer system of claim 11 wherein the processor for each board, upon

2 detection of a fault associated with the at least one power related parameter, shuts down

3 its board.

1 13. The computer system of claim 11 wherein the at least one power-related

2 parameter is a regulated voltage of the board.

1 14. The computer system of claim 11 wherein the at least one power-related

2 parameter is a temperature value of the board.

1 15. The computer system of claim 10 wherein the processor for each board is

2 responsive to instructions received from the signaling interface for controlling its

3 regulator.

1 16. The computers system of claim 10 wherein the processor for each board

2 causes data to be written to a system log file via the signaling interface and wherein the

3   data is associated with the at least one power related parameter of its board.

1   17. The computers system of claim 10 further comprising an interface for
2   coupling to a console for receiving instructions therefrom for controlling various ones of
3   the processors on each board.

1   18. The computers system of claim 10 further comprising a central controller
2   coupled to the signaling interface for controlling the processor on each of the plurality of
3   boards.

1   19. The computers system of claim 18 wherein the central controller causes data
2   to be written to a log file representative of information received, via the signaling
3   interface, with respect to at least one power related parameter of one of the plurality of
4   boards.

1   20. The computers system of claim 18 further comprising an interface for
2   coupling the central controller to a console for receiving instructions therefrom for
3   controlling various ones of the processors on each board.